

*Admin Record
EL TORO*

M60050_003737
MCAS EL TORO
SSIC NO. 5090.3.A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

21 August 2006

Mr. Darren Newton
BRAC Environmental Coordinator
Base Realignment and Closure
7040 Trabuco Road
Irvine, California 92618

RE: Draft Work Plan, Demilitarization of Munitions and Explosives of Concern (MEC),
Installation Restoration Program (IRP) Site 1, Explosive Ordnance Disposal (EOD)
Training Range, Former Marine Corps Air Station (MCAS) El Toro, California

Mr. Newton:

The EPA has reviewed the subject work plan. We have identified issues in regard to future use of this site and provide a general comment of facts that should be made known to all parties involved in any transfer of the property; the transfer of the range should be accomplished in a manner that will ensure that the public is provided appropriate protection for activities conducted there in the future. We provide the following comments on the draft work plan.

If you should have any questions, please feel free to contact me at 415-972-3349.

Sincerely,

Rich Muza

Rich Muza
Remedial Project Manager
Federal Facility and Site Cleanup Branch

received
8/28/06

cc Content Arnold, NFECSW SDIEGO
Art Tamayo, NFECSW SDIEGO
Sue Hakim, DTSC
John Broderick, RWQCB
Bob Woodings, RAB Co-Chair
Marcia Rudolph, RAB Subcommittee Chair

**COMMENTS ON THE DRAFT WORK PLAN,
DEMILITARIZATION OF MEC, IRP SITE 1, EOD TRAINING RANGE,
FORMER MCAS EL TORO, CALIFORNIA**

GENERAL COMMENTS

1. It should be noted that the description of the functions performed at the Northern and Southern EOD Training Ranges in Section 1.2.3 indicates that munitions were detonated in pits on the ranges. This would seem to make the prior use of the two ranges in violation of the restrictions currently in effect for "EOD Proficiency Training Ranges" found in Chapter 9 (Quantity Distance and Siting) of DoD 6055.9-STD (DoD Ammunition and Explosives Safety Standards). If the site is to be transferred for use as an "EOD Proficiency Training Range" and is to be used exclusively under the restrictions provided in subchapter C9.8.4.3.4, EOD Proficiency Ranges, of the DoD Standards, then the subject property appears to meet the protective requirements contained therein. However, if fragmenting munitions or charges placed in containers that fragment (ie., automobiles, metal boxes or barrels, etc.) are to be used on the site, or if the site will be used for destruction of fragmenting munitions, then the site does not meet the explosives quantity distance requirements of the DoD Standard. This situation should be fully understood by both the Navy and the transferee.

To present the basis for this concern, excerpts from DoD 6055.9-STD are provided as follows:

"C9.8.4.3.4, EOD Proficiency Training Ranges. EOD proficiency-training ranges are limited to a maximum of 5 lbs [2.27 kg] of demolition explosives (eg., bare charges or items without a fragment hazard).

C9.8.4.3.4.1 Facilities that require IBD [inhabited building distance], PTRD [public traffic route distance] and ILD [interline distance] protection must be located at the following minimum distances from the destruction point:

C9.8.4.3.4.1.1 If the destruction point is at least 500 ft [152.4 m] from these facilities, a 5 lbs [2.27 kg] NEWQD limit applies.

C9.8.4.3.4.1.2 If the destruction point is less than 500 ft [152.4 m], but 300 ft [91.4 m] or more from these facilities, a 2.5-lb [1.13 kg] NEWQD limit applies.

C9.8.4.3.4.1.3 If the destruction point is less than 300 ft [91.4 m], but 200 ft [61 m] or more from these facilities, a 1.25-lb [0.57 kg] NEWQD limit applies.

C9.8.4.3.4.2 Barricading of Destruction Point. If the EOD Proficiency Training Range provides the 500-foot protection distance specified in subparagraph C9.8.4.3.4.1.1 then no barricading of the destruction point is required. If the EOD Proficiency Training Range provides less than 500 feet protection distance, then the range's destruction point shall be constructed to control ejection of debris by:

C9.8.4.3.4.2.1 Constructing a barricade with two entrances, which surrounds the destruction point, that is the equivalent of at least two side-to-side sandbags, is at least six ft [1.83 m] high, and is constructed within about 10 ft [3.05 m] of the destruction point.

C9.8.4.3.4.2.2 Locating the barricade entrances at 180 degrees separation. These entrances shall be barricaded, as above, to effectively block all debris.

C9.8.4.3.4.3 EOD proficiency training ranges used with other than bare charges or non-fragment producing items shall meet the requirements of subparagraph C9.8.4.1.

C9.8.4.3.4.4 EOD proficiency training ranges on which explosively operated tool kits are used on inert AE only require 100 ft [30.5 m] separation distance between the destruction point and facilities that require IBD, PTRD and ILD protection. The site shall be barricaded per subparagraph C9.8.4.3.4.2 above."

As is noted in C9.8.4.3.4.3 above, "EOD proficiency training ranges used with other than bare charges or non-fragment producing items shall meet the requirements of subparagraph C9.8.4.1." That subparagraph (C9.8.4.1), in general, requires that the distance separating nonessential personnel from the destruction point be at the destructed munition's fragment throw distance or at a minimum of 1,250 feet from the destruction point. While a number of mitigating exceptions are cited in the DoD standard, none will allow the range as currently configured to be used for the firing of fragment producing devices. This is due to the distance from the range destruction points to the installation boundary being less than approximately 800 feet at the closest point, per Figure 1-2, Site Plan, of the Draft Work Plan.

Transfer of the ranges as currently configured for any purpose other than those described in subparagraph C9.8.4.3.4 above for an EOD Proficiency Training Range would likely pose a potential threat to anyone approaching the existing range boundary fence during explosives operations unless protective measures were implemented to mitigate the fragmentation hazard or to extend the public separation distance (ie., moving the fence line) to the prescribed distances for fragmenting munitions as prescribed in DoD 6055.9-STD.

All parties involved in the transfer of this site should be appraised of the concerns expressed above.

SPECIFIC COMMENTS

1. **Acronyms and Abbreviations, Page vii** -- The acronym "SUXOS" is defined as "Site UXO Supervisor" in the acronym section but is defined as "Senior UXO Supervisor" on page 3-1 in the first bullet of Section 3.1. It is recommended that the definition under "Acronyms and Abbreviations" be changed to read the same as that found in Section 3.1 as it is the correct definition per the DoD Explosives Safety Board (DDESB) Technical Paper (TP) 18, Minimum Qualifications for UXO Technicians and Personnel.
2. **Section 1.2.4, Page 1-2** -- "IRP Site 1 was originally scheduled to be transferred to the Federal Bureau of Investigation (FBI). Upon transfer, the FBI indicated that they planned to use the property for purposes similar to the past use for EOD training (Earth Tech 2001a). The Navy is evaluating the property disposal options and still intends to transfer the site for like use (EOD training range)." This section is unclear as to whether the FBI transfer has been cancelled or is still under consideration. While Section 1.3 appears to provide some limited clarification, a more detailed explanation is recommended in Section 1.2.4 of the work plan. It is recommended that this section be revised to clarify whether the original transfer of the property to the FBI is still intended or if another action is under consideration.

3. **Section 3.3, Page 3-1 --** “The SUXOS will notify the Orange County Fire Authority of the location and the approximate times for proposed demolition activities prior to demolition and will notify the Orange County Fire Authority again approximately 10 minutes before any demolition.” No statement is made as to how far in advance of the demolition activities the initial notification will be made. It is recommended that this section be revised to indicate how far in advance of the demolition activities the initial advance warning will be provided to the Orange County Fire Authority.
4. **Section 4.1, Page 4-1 --** “A MEC technician will traverse the site in advance of the mower to identify any previously-identified (flagged) or visible but unflagged MEC or MD items and, if safe to move, relocate the items to a consolidation location at Building 795 (Figure 1-2) for evaluation and eventual demilitarization either with saws or by means of explosive detonation.” No explanation is offered as to what will be done if the suspected MEC or MD item is determined to be too hazardous to move. While this is explained in the associated Task Hazard Analysis found in Appendix A, it is recommended that this issue be explained in the cited section of the body of the work plan. Also, it is recommended that the term “MEC technician” be defined or replaced with one of the formal UXO personnel descriptive terms found in the formal definitions of UXO technicians and personnel provided in Appendix AP1 (Definitions) of DDESB TP 18 (Minimum Qualifications for UXO Technicians and Personnel).
5. **Section 4.3, Pages 4-2 & 4-3 --** This section discusses the demilitarization by saw cutting of the three MEC items converted to MD by the detonation activities and the other MD items currently stored on the site or generated by the mowing operation. The terminology used to describe the items currently in storage is confusing and results in difficulty in identifying the actual items present and their status as MD (or possibly as material potentially presenting an explosion hazard [MPPEH]) or MEC requiring thermal treatment or detonation to remove the potential hazards present). Examples of the confusing terminology include:
 - “4 – 40mm cartridges, expended/broken” Do some of these “broken” cartridges contain live primers, propellant, or projectiles?
 - “27 – rounds, expended/broken (1.125” diameter)” Do some of these “broken” rounds contain live primers, propellant, or projectiles? If they are unexpended “rounds,” they contain a primer, propellant, a projectile, and possibly a fuze, all of which could be or contain energetic material.
 - “9 – 20mm cartridges, expended/broken” Do some of these “broken” cartridges contain live primers, propellant, or projectiles? If they are unexpended “cartridges,” they contain a primer, propellant, a projectile, and possibly a fuze, all of which could be or contain energetic material.
 - “8 – unknown rounds, expended/broken, approx 1” to 1.25” in diameter, 1-demilitarized, 2-with possible smokeless powder pellets” Some of these items may have energetic materials present.

It is recommended that the cited listing be reviewed and the terminology corrected/expanded to accurately describe the items to be demilitarized. Further, it is recommended that the use of the terms "cartridges" and "rounds" be confined to complete munitions items unless modifying terms are added (ie., expended 40mm Bofors cartridge case) and that projectiles be identified by type (ie., practice, high explosive, inert [blind loaded], etc.) where possible. If any of the "MD" items to be demilitarized contain (or are suspected to contain) energetic material, an explanation of the process to be used to eliminate this contamination is recommended.

6. **Appendix B, Page 2-1** -- Section 2.3 refers to the DoD Explosives Safety Board (DDESB) Technical Paper (TP) 16 as "Technical Pamphlet (TP) 16". Also, the first word in the term MGFD is singular and should read "Munition." It is recommended that these discrepancies be corrected.
7. **Appendix B, Page 4-1** -- Section 4.0 lists the "responding EOD team point of contact" as the "710th EOD Team". The correct identity of this organization is the "710th Ordnance Company (Explosive Ordnance Disposal)". It is recommended that this correction be made here, in Section 5.0, and at any other listing of this unit as a point of contact.
8. **Appendix C** -- This appendix is incorrectly located under the title sheet of Appendix D. Please correct this in the next revision.
9. **Appendix E** -- The 25th bullet in Section 5 states that "the Charts shown in Tables C-1 and C-2 shall be used for determining the safe distances from transmitter antennas." No tables labeled C-1 and C-2 are found in Appendix E. Tables containing the referenced data are found listed as "Table D-1" and "Table D-2." It is unclear why tables that are a part of Appendix E would be referenced as Table C-1 and C-2 and then identified in the document as Tables D-1 and D-2 when they are a part of Appendix E. It is recommended that this discrepancy be reviewed and corrected as necessary.